

What is claimed is:

1. An antenna, comprising:

5 a planar antenna element having a feed point; and
a ground pattern juxtaposed with said planar antenna element,
and

wherein said ground pattern has a trimmed portion causing
to continuously change a distance between said planar antenna element
and said ground pattern.

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2. The antenna as set forth in claim 1, wherein said trimmed portion
is formed from a point near said feed point toward a side being
opposite to said planar antenna element.

15 3. The antenna as set forth in claim 1, wherein said planar antenna
element and said ground pattern are formed extending along counter
directions respectively.

4. The antenna as set forth in claim 1, wherein said ground element
20 is disposed without fully surrounding said planar antenna element.

5. The antenna as set forth in claim 1, wherein said trimmed portion
is formed in a tapered shape with respect to said feed point of
said planar antenna element.

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6. The antenna as set forth in claim 5, wherein said tapered shape
is composed of any one of segments, curved lines being convex upwardly,
and curved lines being convex downwardly.

30 7. The antenna as set forth in claim 5, wherein said tapered shape
is symmetric with respect to a straight line passing through said

feed point of said planar antenna element.

8. The antenna as set forth in claim 5, wherein a concavity
accommodating a portion for feeding to said feed point of said planar
5 antenna element is formed at a tip of said tapered shape.

9. The antenna as set forth in claim 1, wherein said planar antenna
element is formed on a dielectric substrate, said ground pattern
is formed in or on a resin board, and said dielectric substrate
10 is mounted on said resin board.

10. The antenna as set forth in claim 1, wherein said planar antenna
element has a shape in which a bottom side thereof has a straight
portion or a substantially straight portion adjacent to said ground
15 pattern, lateral sides thereof are provided vertically or
substantially vertically to said bottom side, and a cut-out portion
is provided in a top side thereof.

11. The antenna as set forth in claim 9, wherein said dielectric
20 substrate on which said antenna element is formed is mounted at
an upper end of said resin board, and said ground pattern is formed
to have a region extending toward at least either of a right side
and a left side of the dielectric substrate.

25 12. The antenna as set forth in claim 9, wherein said dielectric
substrate on which said antenna element is formed is mounted at
at least either of a right upper end and a left upper end of said
resin board, and said ground pattern is formed to have a region
extending toward an opposite side to a side at which said dielectric
30 substrate is mounted.

13. An antenna, comprising:

a dielectric substrate on which an antenna element is formed;

and

a board on which said dielectric substrate is mounted, and

5 in or on which a ground pattern is formed to be juxtaposed with said dielectric substrate, and

wherein said ground pattern has a tapered shape with respect to a feed point of said antenna element, and said antenna element has a cut-out portion formed at an edge portion being opposite to
10 the ground pattern side of said antenna element.

14. The antenna as set forth in claim 13, wherein a first dielectric substrate is disposed on a right upper end of said board, a second dielectric substrate is disposed on a left upper end of said board,
15 and said ground pattern has a region to separate said first and second dielectric substrate.

15. A wireless communication device, comprising:

a dielectric substrate on which an antenna element is formed;

20 a board on which said dielectric substrate is mounted, and in or on which a ground pattern juxtaposed with said dielectric substrate is formed, and

a RF circuitry mounted on said ground pattern, and

wherein said ground pattern has a trimmed portion causing
25 to continuously change a distance between said antenna element and said ground pattern.